

IN THE CLAIMS:

Claims 1-19 (Canceled)

Claim 20 (Currently amended) A light modulation apparatus comprising:

a liquid crystal device; ~~and~~

a pulse control unit for changing the transmittance of light made incident on said liquid crystal device from a current transmittance into a target transmittance by sequentially applying at least two distinct drive pulses to said liquid crystal device; and

a polarizing plate disposable in an optical path of light made incident on said liquid crystal device;

wherein said at least two drive pulses include a first drive pulse having a first pulse height and a first pulse width and a second drive pulse having a second pulse height and a second pulse width; and

wherein the first pulse height is greater than the second pulse height and/or the first pulse width is greater than the second pulse width.

Claims 21 and 22 (Canceled)

Claim 23 (Previously presented) A light modulation apparatus according to claim 20, further comprising a drive circuit unit, wherein the drive pulses are generated in synchronization with a clock generated by said drive circuit unit.

Claim 24 (Previously presented) A light modulation apparatus according to claim 23, further comprising a control circuit unit, wherein luminance information of the light emerged from said liquid crystal device is fed back to said control circuit unit, and the drive pulses are generated in synchronization with said clock, which is generated by said drive circuit unit on the basis of a control signal supplied from said control circuit unit.

Claims 25-28 (Canceled)

Claim 29 (Currently amended) A light modulation apparatus according to claim 20, ~~further comprising a~~ wherein said polarizing plate ~~that~~ is movable into and out of ~~an~~ said optical path of light made incident on said liquid crystal device.

Claim 30 (Previously presented) A light modulation apparatus according to claim 29, wherein said polarizing plate is disposed in a movable portion of a mechanical iris in such a manner as to be movable into and out of the optical path by operation of said movable portion of said mechanical iris.

Claim 31 (Original) A light modulation apparatus according to claim 20, wherein a drive electrode of said liquid crystal device is formed at least over the entire region of an effective light transmission portion.

Claims 32-48 (Canceled)

Claim 49 (Previously presented) An image pickup apparatus comprising:
a light modulation apparatus including a liquid crystal device and a pulse control unit for changing the transmittance of light made incident on said liquid crystal device from a current transmittance into a target transmittance by sequentially applying at least two distinct drive pulses to said liquid crystal device;

wherein said light modulation apparatus is disposed in an optical path of an optical system of said image pickup apparatus;

wherein said at least two drive pulses include a first drive pulse having a first pulse height and a first pulse width and a second drive pulse having a second pulse height and a second pulse width; and

wherein the first pulse height is greater than the second pulse height and/or the first pulse width is greater than the second pulse width.

Claims 50 and 51 (Canceled)

Claim 52 (Previously presented) An image pickup apparatus according to claim 49, further comprising a drive circuit unit, wherein the drive pulses are generated in synchronization with a clock generated by said drive circuit unit.

Claim 53 (Previously presented) An image pickup apparatus according to claim 52, wherein said drive circuit unit is a drive circuit unit of an image pickup device disposed on a light outgoing side of said light modulation apparatus, and luminance information of the light emerged from said liquid crystal device is fed back to said control circuit unit, and the drive pulses are generated in synchronization with said clock, which is generated by said drive circuit unit on the basis of a control signal supplied from said control circuit unit.

Claim 54 (Original) An image pickup apparatus according to claim 49, wherein said liquid crystal device is a guest-host type liquid crystal device.

Claim 55 (Original) An image pickup apparatus according to claim 54, wherein a host material of said liquid crystal device is a negative or positive type liquid crystal having a negative or positive type dielectric constant anisotropy.

Claim 56 (Original) An image pickup apparatus according to claim 54, wherein a guest material of said liquid crystal device is a positive or negative type dichroic dye molecular material having a positive or negative type light absorption anisotropy.

Claim 57 (Original) An image pickup apparatus according to claim 49, further comprising a polarizing plate disposed in an optical path of light made incident on said liquid crystal device.

Claim 58 (Previously presented) An image pickup apparatus according to claim 49, further comprising a polarizing plate that is movable into and out of an optical path of light made incident on said liquid crystal device.

Claim 59 (Previously presented) An image pickup apparatus according to claim 58, wherein said polarizing plate is disposed in a movable portion of a mechanical iris in such a manner as to be movable into and out of the optical path by operation of said movable portion of said mechanical iris.

Claim 60 (Original) An image pickup apparatus according to claim 49, wherein a drive electrode of said liquid crystal device is formed at least over the entire region of an effective light transmission portion.

Claims 61-86 (Canceled)

Claim 87 (Currently amended) A method of driving a light modulation apparatus including a liquid crystal device, comprising the step of:

changing the transmittance of light made incident on said liquid crystal device from a current transmittance into a target transmittance by sequentially applying at least two distinct drive pulses to said liquid crystal device;

wherein a polarizing plate is disposable in an optical path of light made incident on said liquid crystal device;

wherein the at least two drive pulses include a first drive pulse having a first pulse height and a first pulse width and a second drive pulse having a second pulse height and a second pulse width; and

wherein the first pulse height is greater than the second pulse height and/or the first pulse width is greater than the second pulse width.

Claims 88 and 89 (Canceled)

Claim 90 (Previously presented) A method of driving a light modulation apparatus according to claim 87, wherein the drive pulses are generated in synchronization with a clock generated by a drive circuit unit provided in said light modulation apparatus.

Claim 91 (Previously presented) A method of driving a light modulation apparatus according to claim 90, wherein luminance information of the light emerged from said liquid crystal device is fed back to a control circuit unit provided in said light modulation apparatus, and the drive pulses are generated in synchronization with the clock, which is generated by said drive circuit unit on the basis of a control signal supplied from said control circuit unit.

Claims 92-95 (Canceled)

Claim 96 (Currently amended) A method of driving a light modulation apparatus according to claim 87, further comprising selectively moving ~~[[a]]~~ said polarizing plate into and out of ~~an~~ said optical path of light made incident on said liquid crystal device.

Claim 97 (Previously presented) A method of driving a light modulation apparatus according to claim 96, wherein said polarizing plate is disposed in a movable portion of a mechanical iris in such a manner as to be movable into and out of the optical path by operation of said movable portion of said mechanical iris.

Claim 98 (Original) A method of driving a light modulation apparatus according to claim 87, wherein a drive electrode of said liquid crystal device is formed at least over the entire region of an effective light transmission portion.

Claims 99-124 (Canceled)

Claim 125 (Previously presented) A method of driving an image pickup apparatus in which a liquid crystal device of a light modulation apparatus is disposed in an optical path of an optical system of said image pickup apparatus, comprising the step of:

changing the transmittance of light made incident on said liquid crystal device from a current transmittance into a target transmittance by sequentially applying at least two distinct drive pulses to said liquid crystal device;

wherein the at least two drive pulses include a first drive pulse having a first pulse height and a first pulse width and a second drive pulse having a second pulse height and a second pulse width; and

wherein the first pulse height is greater than the second pulse height and/or the first pulse width is greater than the second pulse width.

Claims 126 and 127 (Canceled)

Claim 128 (Previously presented) A method of driving an image pickup apparatus according to claim 125, wherein the drive pulses are generated in synchronization with a clock generated by a drive circuit unit provided in said light modulation apparatus.

Claim 129 (Previously presented) A method of driving an image pickup apparatus according to claim 125, wherein a drive circuit unit is disposed on a light outgoing side of said light modulation apparatus, luminance information of the light emerged from said liquid crystal device is fed back to a control circuit unit provided in said light modulation apparatus, and the drive pulses are generated in synchronization with a clock generated by said drive circuit unit on the basis of a control signal supplied from said control circuit unit.

Claim 130 (Original) A method of driving an image pickup apparatus according to claim 125, wherein said liquid crystal device is a guest-host type liquid crystal device.

Claim 131 (Original) A method of driving an image pickup apparatus according to claim 130, wherein a host material of said liquid crystal device is a negative or positive type liquid crystal having a negative or positive type dielectric constant anisotropy.

Claim 132 (Original) A method of driving an image pickup apparatus according to claim 130, wherein a guest material of said liquid crystal device is a positive or negative type dichroic dye molecular material having a positive or negative type light absorption anisotropy.

Claim 133 (Original) A method of driving an image pickup apparatus according to claim 125, wherein a polarizing plate is disposed in an optical path of light made incident on said liquid crystal device.

Claim 134 (Previously presented) A method of driving an image pickup apparatus according to claim 125, further comprising selectively moving a polarizing plate into and out of an optical path of light made incident on said liquid crystal device.

Claim 135 (Previously presented) A method of driving an image pickup apparatus according to claim 134, wherein said polarizing plate is disposed in a movable portion of a mechanical iris in such a manner as to be movable into and out of the optical path by operation of said movable portion of said mechanical iris.

Claim 136 (Original) A method of driving an image pickup apparatus according to claim 125, wherein a drive electrode of said liquid crystal device is formed at least over the entire region of an effective light transmission portion.

Claims 137-162 (Canceled)